United States Department of Agriculture

NRCS Natural Resources Conservation Service

CRP Mid-Contract Management Option: Integrated Pest Management (IPM)

Conservation Practice Job Sheet

ID - CRP, JS-20

November 2008

The purpose of mid-contract management activities is to enhance the wildlife habitat value of the enrolled acres by encouraging a diverse community and controlling noxious weeds and other invasive species. This mid-contract management activity provides maximum flexibility to producers to ensure that CRP lands meet program requirements, and goes beyond the annual maintenance requirements to protect all resources and maximize benefits.

Purpose

An integrated, adaptive management approach will help rejuvenate deteriorating CRP lands in order to increase community diversity and improve cover and food sources, benefitting wildlife and soil and water resources. The objectives of this activity are to:

- Improve the diversity of vegetation on CRP lands, encourage the establishment and growth of native species, and improve the quality and quantity of vegetation for wildlife needs (food, cover, etc.), especially during critical periods.

- Control state-listed noxious weeds and other invasive species on CRP lands using an approach that emphasizes prevention and avoidance techniques in addition to suppression methods.

The goal of integrated management is to focus on the species and communities that are desired to benefit wildlife, rather than on simply eliminating weeds, while maintaining or improving soil and water resources.

Practice Specifications

Integrated pest management must include three components: 1) plan development, 2) scouting/weed inventory, and 3) implementation.

Plan development. The producer should work with a qualified professional to develop an IPM plan for the CRP lands. Alternatively, a producer may use a basic IPM plan available through NRCS and adapt it to his/her specific site conditions, with assistance from NRCS, Extension, IDFG, County Weed Superintendent, or similar entity. Plans and practices used should be recommended by NRCS biologists to ensure wildlife needs are met. **The plan should specifically state the benefits to wildlife that will result through implementation.** Any practice proposed that could impact nesting birds or incur short-term losses in wildlife or habitat should have concurrence from IDFG. Implementation of practices shall not occur during the primary nesting period, unless specifically recommended and approved by IDFG and FSA.

Scouting/Weed Inventory. Scouting is the first step in getting the best evaluation of any undesired plant populations and using the best management strategy. The weed population is quite transitional and different species may be present at different times of the year. Additionally, the species and density of weeds and other non-desired populations will vary within and between fields. **At a minimum, producers need to scout 3 times throughout the growing season for their CRP fields and prepare a map** each time that they scout or apply any IPM activity.

Implementation. The producer **must implement at least 2 specific management activities identified in the plan**, in addition to establishing a weed inventory and preparing detailed maps. Ideally, the plan will prioritize species for manipulation and provide timeframes for activities, with **a minimum of 2 years**. For example, small clusters of pioneer species with the greatest impact for harm could be the focus of management the first implementation year, followed by more widespread management the following year. **All activities must be recorded**. Activities are designed to manipulate the plant community to ensure biodiversity, to protect forbs and legumes that benefit native pollinators and other wildlife, and to provide insect food sources for grassland nesting birds, while assisting with management of noxious and invasive weeds.

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Implementation Activities

Recommended activities that may be included in an IPM plan on CRP lands are listed below. Other practices may also be included in the plan, and will depend on individual field requirements and objectives.

Fertilization of stands dominated by cool season, introduced grasses. Introduced cool-season grasses, unlike native species, typically require a higher soil fertility to maintain health and vigor. On these stands, noxious weeds can gain a foothold and are very difficult to control, even with annual maintenance. Plant diversity is lost as weeds take over, often creating monocultures in areas of the field. Fertilization of these stands at the proper time can invigorate the grasses, increasing their competitive ability, while maintaining a large variety of native forbs within the community. Enhanced diversity and improved cover reduces the encroachment of noxious weeds and the potential for soil and water impacts, while improving wildlife habitat quality. This practice may have a negative impact on CRP cover if not implemented properly. Specific timing and rates of application must target cool-season grasses, and shall not be used where a large percentage of the field is comprised of winter annual weeds.

Manual and mechanical techniques such as pulling, clipping, cutting, and otherwise damaging plants, may be used to control some invasive plants, particularly if the population is relatively small. These techniques can be extremely specific, minimizing damage to desirable plants and animals, but they are generally labor and time intensive. Treatments must typically be administered several times to prevent the weed from re-establishing, and in the process, laborers and machines may severely trample vegetation and disturb soil, providing prime conditions for re-invasion by the same or other invasive species. Manual and mechanical techniques are generally favored for small infestations. They are often used in combination with other techniques. When using manual and mechanical methods, it is especially important to thoroughly clean and inspect all equipment and clothing before moving it off-site. This will lessen the probability of spreading the weed(s) to the next worksite. Some control of undesired perennial weeds may be achieved by clipping them in the bud stage of growth. Repeated clipping of weeds may be necessary to achieve most effective control. Clipping winter annual grasses is ineffective for control and may actually enhance growth of the weeds. Intensive clipping has proven a satisfactory method for controlling summer annual broadleaf weeds in establishing perennial cover crops. Targeted spot treatment of patches of undesired species can be accomplished through:

- Hand pulling, clipping or other appropriate mechanical or cultural treatment
- Preparation and seeding of small areas that have poor vigor, bare ground, or otherwise have been disturbed.

This practice applies when plant diversity and wildlife habitat enhancement can best be accomplished by eliminating whole-field spraying, while still being compatible with required noxious weed control.

Any **prescription burn** used to increase vigor of desirable species while controlling vulnerable weeds will follow the guidelines set forth in the stand-alone mid management “prescribed burn” practice outlined by FSA and in accordance with state law. The burn is part of an integrated approach, and additional activities will be required either pre- or post-burn years.

Spot treatment using low hazard herbicides. The timing and type of herbicide is critical to effective control of target species, while minimizing any impact to non-target species. Aggressive control measures applied to small areas of noxious weed infestations may result in less overall pesticide applications. Refer to the PNW Weed Handbook for information on specific control information.

Biological control agents, such as insects or pathogens, can be effective at holding an infestation in check once the weed is established. Typically, biological control agents are slow, relative to other control measures, and complete control or eradication of a targeted species of weed is not possible. Any biological control agents used must be approved for use in Idaho. Many counties have active biological control programs. Use of biological control agents will also require monitoring in subsequent years.

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Required documentation includes the IPM plan, weed inventories and maps, and records of all IPM activities. The plan must specifically state the benefits to wildlife that will result through implementation.

CLIENT'S ACKNOWLEDGEMENT STATEMENT

The Client acknowledges that:

a. The producer will work with a qualified professional to develop an IPM plan for the CRP lands, or use a basic IPM plan available through NRCS and adapt it to his/her specific site conditions, with assistance from qualified individuals.

b. Plans and practices used should be recommended by NRCS biologists to ensure wildlife needs are met.

c. At least two recommended IPM activities will be implemented. No activities will be implemented during the nesting period without specific permission. Plan implementation will be performed for a minimum of two years.

b. The producer has received a copy of this mid-contract management activity and understands the contents and requirements.

Accepted by:/s/_____ Date:_____